



Climate & Energy Updates

Environmental Policy Commission

December 16, 2019

Bill Eger

Energy Manager



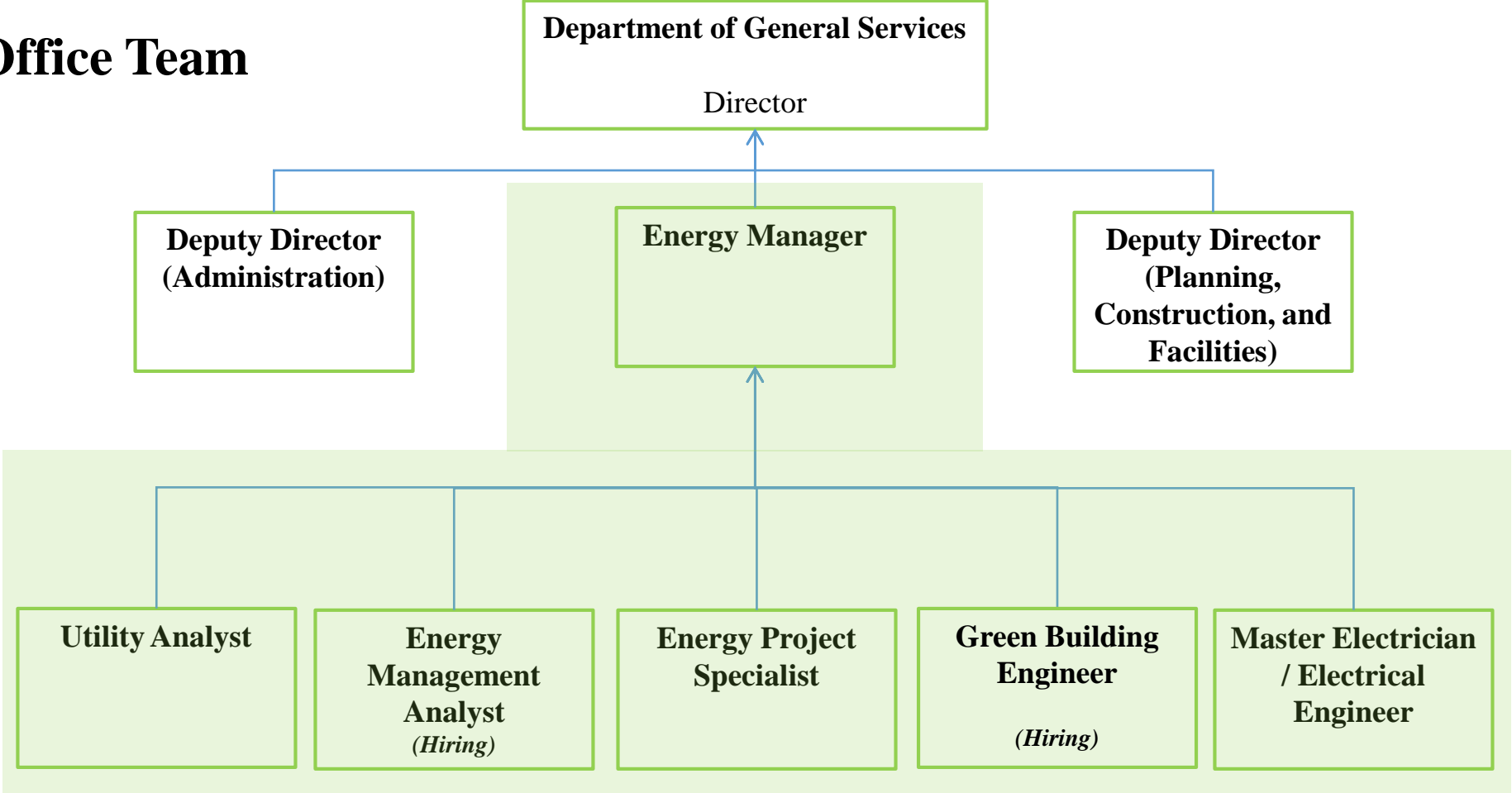
Agenda

- Introduction ~ 5 min
- Programs & Workplan ~ 5 min
- EAP Updates ~ 10 min
- Q & A ~ 10 min





Energy Office Team





Program Verticals

- Utility Acquisition & Management
- City Operations Energy Management
- Community Climate Action & Energy Programs
- Facility Engineering, Green Building, & Operations
- Resiliency & Energy Assurance
- Utility Regulatory & Policy Affairs





Workplan

	Utility Regulation & Policy Affairs	Resiliency & Energy Assurance	Facility Eng & Operations	Community Energy & Climate Programs	City Operations Energy Management	Utility Acquisition, Management, & Analytics	Administration
Energy Manager							
Utility Analyst							
Energy Management Analyst							
Energy Project Specialist							
Green Building Engineer							
Master Electrician / Electrical Engineer							





Environmental Action Plan 2040 Updates





FY21 City Council Budget Retreat ([Video](#) @ 27:30)

City Government Electricity and GHG Reductions (FY 20 -> FY 21)

- 5% Electricity Use Reduction is Feasible
 - Actions:
 - Facility LED lighting retrofits
 - Streetlight LED conversions in partnership with Dominion Energy
 - Challenges Over Time:
 - Electricity use increases for electrification of fleet vehicles, plug loads, heating systems, etc.
 - Completing "low-hanging fruit" projects
- 5% Greenhouse Gas Emissions Reductions Poses Numerous Challenges
 - Actions:
 - Efficiency projects
 - Renewable energy projects
 - Fleet vehicle electrification
 - Challenges Over Time:
 - Natural gas, fleet vehicle & DASH fuel
 - Energy & Climate Action Plan to identify most cost-effective mitigation path
 - Electrical grid transition to include more renewable energy resources
 - Operating and CIP budget & workplan decisions

[27]

City Government Electricity and GHG Reductions Projects (FY21)

- Energy & Climate Action Plan
- Renewable Energy Supply Strategy
- Greening of the City's Vehicle Fleet
- Electric Vehicles, and Electric Vehicle Charging Infrastructure
- DASH Electric Bus Pilot
- Streetlighting
- Energy Management Program CIP
 - Facility and outdoor lighting
 - HVAC and building management enhancements
 - Re- and retro-commissioning
 - Solar photovoltaic system(s) (and consideration of battery storage)
- VFA Facility Condition Index Assessment Energy/GHG/ Sustainability Enhancements
- Green Building Policy Implementation through CIP

[28]





Climate Change

- 1.1.1 (FY21) Energy & Climate Action Task Force / Energy & Climate Action Plan
- 1.1.2 [also 2.2.1] (FY22) Emissions in CIP/Operating Budget





Energy – Renewable Energy

- 2.1.1 (FY20) Offset Electricity Use with RECs
- 2.1.2 (FY21) Renewable Energy Supply Strategy
- 2.1.3 (FY23) Direct Power Purchase





Energy – Energy Efficiency

- 2.2.1 (FY23) Facility Index with Energy/GHG/Sustainability Performance
- 2.2.2 (FY21) Electric Vehicle Program
- 2.2.3 (FY21 & FY23) Facility lighting & Streetlighting
- 2.2.4 (FY27) Energy Reduction by 25%
- 2.2.6 (FY28) 10% Transit Fleet Electrification





Energy – Community Energy

- 2.3.1 (FY19) Regulatory Activities
- 2.3.2 (FY20) C-PACE
- 2.3.3 (FY20) Electric Vehicle Charging Infrastructure Strategy





Other Sections

- Green Building 3.1.1 – 3.1.6
- Transportation 7.1.5
- Implementation, Outreach, Education 10.1.2, 10.2.1





Bill Eger, PE, CPM, ISSP-SA, LEED-AP

Energy Manager

bill.eger@alexandriava.gov

(703) 746-4770



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